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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,266	10/03/2003	Robert Q. Daniel	A-8495	8737

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HOFFMAN, WASSON & GITLER, P.C.
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EXAMINER

TRAN, ELLEN C

ART UNIT	PAPER NUMBER
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2134

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/677,266	DANIEL ET AL.	
	Examiner	Art Unit	
	Ellen C. Tran	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |



DETAILED ACTION

1. This action is responsive to: an original application filed on 3 October 2003.
2. Claims 1-19 are pending; claims 1, 12, and 14 are independent claims.

Claim Objections

3. Claim 14 is objected to because of the following informalities: on claim page 20 line 2, it is believed "agent" is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-19**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Jakobsson et al. U.S. Patent No. 6,981,157 (hereinafter '157) in view of Aggarwal et al. U.S. Patent No. 6,876,643 (hereinafter '643).

As to independent claim 12, "A secure communications system comprising: a first master agent including a control module, a receiver connected to said control module, a transmitter connected to said control module and a spreading sequence device connected to said control module for generating at least one spreading sequence to be transmitted from said first master agent" is taught in '157 col. 5, line 59 through col. 6, line 28;

“at least two first slave agents providing a first communications network with said first master agent” is shown in ‘157 col. 8, lines 57-62;

“each of said first slave agents provided with a control module, a receiver connected to said control module, a transmitter connected to said control module” is disclosed in ‘157 col. 8, line 63-67;

“a memory device for storing at least one spreading sequence transmitted from said first master agent, a device for producing an outgoing message spread by at least one spreading sequence and a device for receiving and despreding an incoming message from one of the other said first slave agents” is taught in ‘157 col. 8, lines 8-15;

“a receiver connected to said central module, a transmitter connected to said control module and a spreading sequence device connected to said control module for generation at least one spreading sequence to be transmitted from said second master agent” is taught in ‘157 col. 5, line 59 through col. 6, line 28;

“at least two second slave agents providing a second communications network with said second master agent, each of said second slave agents provided with a control module” is shown in ‘157 col. 8, lines 57-62;

“a receiver connected to said control module, a memory device for storing at least one spreading sequence transmitted from said second master agent, a device for producing an outgoing message spread by at least one spreading sequence and a device for receiving” is taught in ‘157 col. 5, line 59 through col. 6, line 28;
the following is not explicitly taught in ‘157:

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“a second master agent including a control module” “and despreding an incoming message from one of the other said second slave agents” however ‘643 teaches any two nodes communicating with each other utilizing the method can be master and slave, therefore obvious a second master agent can exist in col. 6, lines 11-18;

“and a third communications device between said first and second master agents, said third communications device transmitting information between said first and second master agents” however ‘643 teaches a super master is elected that communicates with all master nodes in col. 6, lines 31-51.

It would have been obvious to one of ordinary skill in the art at the time of a method and apparatus for ensuring security of users of short range wireless enabled devices taught in ‘157 to include a means to utilize multiple master and slave devices. One of ordinary skill in the art would have been motivated to perform such a modification because to a means is needed to organize devices on wireless transmission system see ‘643 (col. 2, lines 36 et seq.) “Whereas the above conventional arts have been proposed, there are continuous needs to provide a method, a system and a program product for efficiently organizing devices in a wireless transmission system into bounded size clusters in a short amount of time”.

As to dependent claim 13, “wherein each of said first and second master agents provided with a means for ensuring that the spreading sequences generated by said first master agent is different than the spreading sequences generated by said second master agent” is taught in col. 5, lines 1-18.

As to independent claim 14, “A method for transmitting messages in a communications system including a master agent and at least two slave agents, comprising

the steps of: generating a first spreading sequence in said master agent; transmitting said first spreading sequence from said master agent to said slave agent” is taught in ‘157 col. 5, line 59 through col. 6, line 28;

“storing said first spreading sequence in a memory device provided in each of said slave agents” is shown in ‘157 col. 8, lines 57-62;

“producing an outgoing message in one of said slave agents spread by said first spreading sequenced” is taught in ‘157 col. 8, lines 8-15;

the following is not explicitly taught in ‘157:

“and transmitting said outgoing message from one of said slave agents to at least one other slave agent” however ‘643 teaches any two nodes communicating with each other utilizing the method can be master and slave and further teaches that two slaves can communicate with each other in an ad-hoc network in col. 6, lines 11-18.

It would have been obvious to one of ordinary skill in the art at the time of a method and apparatus for ensuring security of users of short range wireless enabled devices taught in ‘157 to include a means to utilize multiple master and slave devices. One of ordinary skill in the art would have been motivated to perform such a modification because to a means is needed to organize devices on wireless transmission system see ‘643 (col. 2, lines 36 et seq.) “Whereas the above conventional arts have been proposed, there are continuous needs to provide a method, a system and a program product for efficiently organizing devices in a wireless transmission system into bounded size clusters in a short amount of time”.

As to dependent claim 15, “further including the step of periodically generating and transmitting additional spreading sequences from said master agent to said slave agents to be substituted for said first spreading sequences” is taught in ‘157 col. 3, lines 43-53.

As to dependent claim 16, “further including the step of randomly generating each of said spreading sequences” is taught in ‘157 col. 3, lines 43-53.

As to dependent claim 17, “further including the step of generating each of said spreading sequences using a particular algorithm” is shown in ‘157 col. 6, lines 22-28.

As to dependent claim 18, “further including the steps of: sensing a number of faulty transmitted data frames; comparing said faulty transmitted data frames with a predetermined threshold level; and producing and transmitting a new spreading sequence from said master agent to each of said slave agents when said predetermined threshold level is exceeded” is disclosed in ‘157 col. 46-50.

As to dependent claim 19, “including the step of encrypting said outgoing message” is taught in ‘157 col. 7, lines 36.

As to independent claim 1, A secure communications system comprising: a master agent including a control module, a receiver connected to said control module, a transmitter connected to said control module and a spreading sequence device connected to said control module for generating at least one spreading sequence to be transmitted from said master agent” is taught in ‘157 col. 5, line 59 through col. 6, line 28;

“and at least two first slave agents providing a first communications network with said master agent, each of said slave agents provided with a control module” is shown in ‘157 col. 8, lines 57-62;

“a receiver connected to aid control module, a transmitter connected to said control module, a memory device for storing at least one spreading sequence transmitted from said master agent, a device for producing an outgoing message spread by at least one spreading sequence” is taught in ‘157 col. 5, line 59 through col. 6, line 28;

the following is not explicitly taught in ‘157:

“and a device for receiving and despreding an incoming message from one of the other said first slave agents” however ‘643 teaches any two nodes communicating with each other utilizing the method can be master and slave and further teaches that two slaves can communicate with each other in an ad-hoc network in col. 6, lines 11-18.

It would have been obvious to one of ordinary skill in the art at the time of a method and apparatus for ensuring security of users of short range wireless enabled devices taught in ‘157 to include a means to utilize multiple master and slave devices. One of ordinary skill in the art would have been motivated to perform such a modification because to a means is needed to organize devices on wireless transmission system see ‘643 (col. 2, lines 36 et seq.) “Whereas the above conventional arts have been proposed, there are continuous needs to provide a method, a system and a program product for efficiently organizing devices in a wireless transmission system into bounded size clusters in a short amount of time”.

As to dependent claim 2, “further including a device in said master agent for randomly generating said spreading sequences” is taught in ‘157 col. 3, lines 43-53.

As to dependent claim 3, “further including a memory device in said master agent provided with an algorithm for producing said spreading sequences” is shown in ‘157 col. 6, lines 22-28.

As to dependent claim 4, “further including a memory device storing a plurality of spreading sequences” however ‘643 teaches a super node is formed maintaining information about a plurality of information for clusters in col. 6, lines 31-51.

As to dependent claim 5, “wherein said master agent is provided with a device for producing a new spreading sequence on a periodic basis, to be transmitted to each of said slave agents” is taught in ‘157 col. 9, lines 32-45.

As to dependent claim 6, “wherein each of said slave agents is provided with a device for transmitting to said master agent on a periodic basis a number of faulty transmitted data frames, said master agent producing and transmitting to each of said slave agents a new spreading sequence when said number of said faulty transmitted data frames exceeds a predetermined threshold level” is disclosed in ‘157 col. 46-50.

As to dependent claim 7, wherein each of said slave agents is provided with a device for producing an encrypted message for transmission and a device for decrypting a received message” is taught in ‘157 col. 7, lines 36.

As to dependent claim 8, “further including at least two additional slave agents providing a second communications network in conjunction with said master agent” however ‘643 teaches any two nodes communicating with each other utilizing the method can be master and slave, therefore obvious a second master agent can exist in col. 6, lines 11-18;

“each of said additional slave agents provided with a control module, a receiver connected to said control module, a transmitter connected to said control module, a memory device for storing at least one spreading sequence transmitted from said master agent” is taught in ‘157 col. 5, line 59 through col. 6, line 28;

“a device for producing an outgoing message spread by at least one spreading sequence and a device for receiving and despreding an incoming message from one of the other said additional slave agents” is taught in ‘157 col. 5, line 59 through col. 6, line 28;

“wherein said master agent produces a first spreading sequence to be used only within said first communications network and said master agent produces a second spreading sequence to be used only within said second communications network” is taught in ‘157 col. 5, line 59 through col. 6, line 28.

As to dependent claim 9, **“wherein said second communications network is a complete subset of said first communications network allowing said additional slave agents to receive and transmit messages from slave agents in both said first communications network on said second communicating network”** however ‘643 teaches that master-slave can be designated in any communication session in col. 6, lines 12-18.

As to dependent claim 10, **“wherein said master agent is provided with a device from encrypting said spreading sequence prior to transmitting said spreading sequence to said slave agents and said slave agents provided with a device for decrypting said spreading sequence”** is shown in ‘157 col. 6, lines 49-61.

As to dependent claim 11, **“including at least two additional second slave agents in a second communications network which is a subset of said first communications network”** however ‘643 teaches any node can become master-slave in col. 6, lines 12-18;

“each of said second slave agents provided with a control module, a receiver connected to said control module, a transmitter connected to said control module, a

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memory device for storing at least two spreading sequences transmitted from said master agent” is disclosed in ‘157 col. 8, line 63-67;

“a device for producing an outgoing message spread by at least one spreading sequence, and a device for receiving and despreding an incoming message from one of the other first and second slave agents” is taught in ‘157 col. 5, line 59 through col. 6, line 28;

“and wherein said master agent generates a first spreading sequence used exclusively by said second slave agents to communicate within said subset of said first communications network” is taught in ‘157 col. 4, lines 46-67.

“said master agent further generates a second spreading sequence used by both said first slave agents and said second slave agents”

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen C Tran whose telephone number is (571) 272-3842. The examiner can normally be reached from 6:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ellen Tran
Patent Examiner
Technology Center 2134
17 February 2007